

### **REMARKS**

Applicants respectfully request reconsideration of the rejection of the claims in view of the claim amendments as well as the remarks set forth below. Claims 1-22 remain in the application. Claims 1, 9, and 17 are currently amended. Claims 2-8, 10-16, and 18-22 were previously presented.

#### **35 U.S.C. §102**

Claims 1, 9, 17 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Raphaeli (US6466613). For a reference to anticipate a claimed invention, each and every element of the claim must be found in the reference.

The applicants respectfully traverse the rejection and submit the following arguments for consideration by the examiner. Amended claim 1 recites, inter alia, a "digital radio frequency (RF) transceiver circuit, comprising . . . a converter circuit that samples a receiver input signal . . . circuitry that is adapted to select between a transmitter input signal and the sampled receiver input signal . . . a filter, the filter being adapted to receive both the transmitter input signal and the sampled receiver input signal, the filter adapted to produce either a filtered transmitter signal or a filtered receiver signal . . . and circuitry that alternatively receives the filtered transmitter signal or the filtered receiver signal and produces a modulated output and a demodulated output, wherein the filter operates at a sampling frequency that is lower than the sampling frequency of the converter and the circuitry that produces the modulated output." (emphasis added). Support for the amendment may be found at least on page 7 lines 1-3, page 6 lines 21-23 and in FIG. 2. The claimed "wherein the filter operates at a sampling frequency that is lower than the sampling frequency of the converter and the circuitry that produces the modulated output" element is an important aspect of claim 1. The background of the invention discusses the desire to reduce the complexity associated with the circuitry for modulating and demodulating signals (page 2 lines 25-28) and additionally, the lower complexity allows for more efficient power consumption (page 6 lines 14-15). The applicants propose that Raphaeli does not show or suggest at least the "wherein the filter operates at a sampling

frequency that is lower than the sampling frequency of the converter and the circuitry that produces the modulated output “ element of claim 1.

Raphaeli appears to be directed at a communications transceiver that includes a bandpass filter that is switched between a receiving circuit and a transmitting circuit. A control signal allows the bandpass filter to connect between the receiver input and the A/D converter for the receiver circuitry or the D/A converter for transmitter circuitry and the transmitter output. In contrast, claim 1 includes a filter wherein “the filter operates at a sampling frequency that is lower than the sampling frequency of the converter and the circuitry that produces the modulated output “. Indeed, Rahaeli appears only to recognize using an analog filter that does operate using a sampling frequency at all, let alone a frequency related to other circuitry in the transceiver, such as the A/D converter in the receiving circuit. As a result, Raphaeli does not show or suggest at least the “wherein the filter operates at a sampling frequency that is lower than the sampling frequency of the converter and the circuitry that produces the modulated output “ element of claim 1. Therefore it is respectfully proposed that the rejection of claim 1 under 35 U.S.C. § 102(b) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Amended claim 9 has been amended to include limitations similar to the elements of claim 1 and should therefore be allowable for that reason as well as the additional recitations contained therein. Therefore it is respectfully proposed that the rejection of claim 9 under 35 U.S.C. § 102(b) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Amended claim 17 has been amended to include limitations similar to the elements of claim 1 and should therefore be allowable for that reason as well as the additional recitations contained therein. Therefore it is respectfully proposed that the rejection of claim 17 under 35 U.S.C. § 102(b) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

**35 U.S.C. §103**

Claims 3, 8, 11, 16, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Raphaeli in view of Beck et al. Dependent claims 3 and 8, being

dependent on and further limiting independent claim 1, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claims 3 and 8 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claims 11 and 16, being dependent on and further limiting independent claim 9, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claims 11 and 16 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claim 19, being dependent on and further limiting independent claim 17, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claim 19 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Claims 5-7, 13-15, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Raphaelli in view of Webster, et al. Dependent claims 5-7, being dependent on and further limiting independent claim 1, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claims 5-7 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claims 13-15, being dependent on and further limiting independent claim 9, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claims 13-15 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

Dependent claim 20, being dependent on and further limiting independent claim 17, should be allowable for that reason as well as the additional recitations that they contain. Therefore it is respectfully proposed that the rejection of claim 20 under 35 U.S.C. § 103(a) is overcome in accordance with the above remarks and notice to that effect is earnestly solicited.

**Allowable Subject Matter**

Applicants respectfully note that claims 2, 4, 10, 12, and 18 were deemed to be allowable if rewritten in independent form including the limitations of the base claim and any intervening claims. Applicants also respectfully note that claims 21 and 22 are allowed.

**Conclusion**

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicants' agent at (317) 587-4027, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No additional fee is believed due in regard to the present amendment. However, if an additional fee is due, please charge the fee to Deposit Account 07-0832.

Respectfully submitted,

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